

## TEXT OF THE FIRST OFFICE ACTION

After examination, the detailed opinions are provided as follows:

1. **The independent claim 1** claims to protect a modem. The **Reference 1** (JP 特開 2000-217151A) discloses a “データ通信装置” with detailed technical features (**refer to the abstract, paragraph 1, paragraph 7 to 24 and paragraph 34 to 57 of the specification of the present References and Figs. 1-6**) as follows:

“(1) データ通信手段——情報端末 1 と情報端末 1 のデータ通信を補助する通信装置 3 0 と接続される”. The “情報端末 1 ”is corresponding to the subscriber terminal as described in claim 1 of the present application document. However, the “補助通信装置 3 0 ” can be a modem;

“(2) 補助通信装置 3 0 における端子 3 1 1 は情報端末 1 と補助通信装置 3 0 との接続状態を検出する”;

“(3) インタフェイス制御部 2 は、データの送信制御および受信制御を行う。判定部 3 は情報端末 1 と補助通信装置 3 0 との接続状態が非接続であることを検出する場合に、インタフェイス制御部 2 は、データつうしんの接続を停止する”;

In addition, the description of the “second interface” has been hiddenly disclosed in the Reference 1, the reason are as follows: “変復調装置はユーザの端末装置と他のシステムとの間の中間装置であり、その一端はユーザの端末装置と接続し、他の一端は他の交換装置と接続する。したがって、第二のインタフェイスが必ずある”.

Compared with the Reference 1, the distinct technical feature of claim 1 is as follows: the control function of said controller is realized in the modem which is connected with subscriber terminal and the switching system. However, such a function is realized in the “情報端末” as disclosed in the Reference 1. The **Reference 2** (US4701946) (**refer to the abstract, lines 10 to 26, column 5 of the specification of the Present Reference**) discloses a device for controlling the application of power to a computer with detailed technical features as follows: wherein the computer is externally connected with modem 17E and controls to provide the power supply to the computer via detecting the communication connection status of the phone line. And said control function can be realized via an independent apparatus, and also can be combined into the modem. The function of the technical features as mentioned above is the same as the function of the technical features in the present application. Therefore, the Reference 2 can provide the inspiration of applying the distinct technical features mentioned above to the Reference 1 so

as to solve the technical problem of the present application. Thus, it is obvious for those skilled in the art to obtain the technical solution sought for protection in the present application by combining the Reference 2 based on the Reference 1, and such a combination does not bring any unexpected technical effect. Therefore, **claim 1** does not comply with the provision on inventive step as prescribed in **Article 22, paragraph 3** of the Patent Law of China in that it does not possess any prominent substantive feature, nor does it represent a notable progress compared with the **References 1 and 2**.

2. The additional technical feature of the **dependent claim 2** is as follows: the detector detects whether a signal is transmitted to the first interface from the subscriber terminal, and outputs the non-connection signal if a non-transmission status of the signal lasts for a predetermined time period. The following technical features have been disclosed in the **Reference 1 (refer to paragraphs 53 to 56 of the specification of the present Reference and Fig. 4)**: “判定部 3 は被接続状態を検出し、時間 T 1 が経過していれば、データ通信を停止する”. The present feature of the Reference 1 is the same as the additional technical feature of claim 2. Therefore, when claim 1 referred to by claim 2 does not possess inventive step, **claim 2** does not comply with the provision on inventive step as prescribed in **Article 22, paragraph 3 of the Patent Law of China** in that it does not possess any prominent substantive feature, nor does it represent a notable progress compared with the **References 1 and 2**.

3. The additional technical feature of the **dependent claim 3** is as follows: the detector detects whether a synchronization signal is inputted for matching data transmission speed from the subscriber terminal, and generates the non-connection signal if the non-input status of the synchronization signal lasts for a predetermined time period. The additional technical features of claim 3 are the same as the additional technical features of claim 2 except the adopted detected signal is a synchronization signal (the present technical features **have been disclosed in paragraphs 53 to 56 of the specification of the Reference 1 and Fig. 4**). However, it is the common knowledge of the art to adopt a synchronization signal in the data transmission. Therefore, when claim 2 referred to by claim 3 does not possess inventive step, **claim 3** does not comply with the provision on inventive step as prescribed in **Article 22, paragraph 3 of the Patent Law of China** in that it does not possess any prominent substantive feature, nor does it represent a notable progress compared with the **References 1 and 2**.

4. The additional technical feature of the **dependent claim 4** is as follows: further comprising: a light-emitting device mounted on an exterior of a main body, indicating a connection status; and a switching device transiting on and off electric power transmitted from a power supply to the light-emitting device, wherein the switching device drives the transiting of the light-emitting device in correspondence with a signal outputted from the detector. The following technical features have been disclosed in the **Reference 1 (refer to paragraphs 44 and 57 of the specification of the present Reference)**: “発光ダイオードにより、コネクション状態を指示し、または、電源制御部 22 は判定部 3 の検出結果により、電力の供給と電力の停止を制御する”. Therefore, when claim 3 referred to by claim 4 does not possess inventive step, **claim 4 does not comply with the provision on inventive step as prescribed in Article 22, paragraph 3 of the Patent Law of China** in that it does not possess any prominent substantive feature, nor does it represent a notable progress compared with the **References 1 and 2**.

5. The additional technical feature of the **dependent claim 5** is as follows: the first interface interfaces with the subscriber terminal in one of Ethernet, Universal Serial Bus (USB), Phoneline Network Alliance (PNA), Bluetooth, wireless LAN, and home RF protocol. The present technical features are the conventionally used technical measure of the art. Therefore, when claim 3 referred to by claim 5 does not possess inventive step, **claim 5 does not comply with the provision on inventive step as prescribed in Article 22, paragraph 3 of the Patent Law of China** in that it does not possess any prominent substantive feature, nor does it represent a notable progress compared with the **References 1 and 2**.

6. The additional technical feature of the **dependent claim 6** is as follows: the first interface includes: a matching circuit unit matching an impedance with respect to a communication interface with the subscriber terminal; and an Ethernet transceiver transmitting and receiving an Ethernet data packet with the subscriber terminal. It is the conventionally used technical measure of the art to fit out the modem connected the subscriber terminal with a matching circuit matched an impedance. At the same time, the following technical features have been disclosed in the **Reference 1 (refer to paragraphs 46 to 48 of the specification of the present Reference)**: “補助通信装置 30 (変復調装置もできる)における信号入出力部 34 は情報端末 1 を協力してデータの送受信を行う”. Therefore, when claim 3 referred to by claim 6 does not possess inventive step, **claim 6 does not comply with the provision on inventive step as prescribed in Article 22, paragraph 3 of the Patent**

**Law of China** in that it does not possess any prominent substantive feature, nor does it represent a notable progress compared with the **References 1 and 2**.

7. The additional technical feature of the **dependent claim 7** explains that the switching system is an ATM switching system and the second interface includes a modem signal processor and a modem signal transmission/reception unit. Wherein it is the conventionally used technical measure of the art to make the modem to connect the different switching system, and it is also the common knowledge of the art to perform the corresponding transformation to the received signals based on the connected switching system so as to adapt the change of the system; at the same time, to configure a signal transmission/reception unit. Therefore, when claim 6 referred to by claim 7 does not possess inventive step, **claim 7** does not comply with the provision on inventive step as prescribed in **Article 22, paragraph 3 of the Patent Law of China** in that it does not possess any prominent substantive feature, nor does it represent a notable progress compared with the **References 1 and 2**.

8. The additional technical feature of the **dependent claim 8** is as follows: further comprising a connector disposed in an inlet groove of a main body to connect a communication cable extended from the subscriber terminal to the first interface, wherein the detector is mounted in the inlet groove that communicates with the communication cable as the communication cable is matched to the connector, and detects a communication connection status of the subscriber terminal. The following technical features have been disclosed in the **Reference 1 (refer to paragraphs 49 to 51 of the specification of the present Reference, and Figs. 2)**: “ユーザ端末 1 と補助通信装置 3 0 とコネクタ 8、コネクタ 3 1 により接続され、コネクタ 8、コネクタ 3 1 のおける端子 8 0 1 と端子 3 1 1 は接続検出ために用いられることができる”. Though the detailed connecting method in the Reference 1 and claim 1 are not completely the same, yet, the differences between them are the equivalent replacement of the common measure with the same function of the art. Therefore, when claim 1 referred to by claim 8 does not possess inventive step, **claim 8** does not comply with the provision on inventive step as prescribed in **Article 22, paragraph 3 of the Patent Law of China** in that it does not possess any prominent substantive feature, nor does it represent a notable progress compared with the **References 1 and 2**.

9. The additional technical feature of the **dependent claim 9** is as follows: the

second interface stops the generation of a signal that maintains a channel with the switching system if an operation stop signal is inputted from the controller. The following technical features have been disclosed in the **Reference 1 (refer to paragraph 56 of the specification of the present Reference)**: “リレー回路 102 は、検出結果から得た制御信号に基づいてデータ線 58 の導通と遮断を決定し、すなわち、非接続状態を検出したときに、データ線 58 を遮断させ、このデータ線を維持することをしない”。 Though the present function of the Reference 1 can be realized in the “ユーザ端末 1”, however, those skilled in the art can decide based on the actual demand whether the present function can be migrated in the interface of the modem and the switching system. And such a migration can be realized by the conventionally used technical measure of the art. Therefore, when claim 1 referred to by claim 9 does not possess inventive step, **claim 9 does not comply with the provision on inventive step as prescribed in Article 22, paragraph 3 of the Patent Law of China** in that it does not possess any prominent substantive feature, nor does it represent a notable progress compared with the **References 1 and 2**.

10. The additional technical feature of the **dependent claim 10** is as follows: further comprising a switching device mounted on a path between the second interface and a power supply, wherein the controller controls the switching device to be transited to the off position if the non-connection signal is inputted. The following technical features have been disclosed in the **Reference 1 (refer to paragraph 57 of the specification of the present Reference)**: “電源制御部 22 が加えられ、検出された接続状態により前記電源の導通または遮断を決定する”。 Therefore, when claim 1 referred to by claim 10 does not possess inventive step, **claim 10 does not comply with the provision on inventive step as prescribed in Article 22, paragraph 3 of the Patent Law of China** in that it does not possess any prominent substantive feature, nor does it represent a notable progress compared with the **References 1 and 2**.

11. **The independent claim 11** is not concise, which does not comply with the provision of Rule 20, paragraph 1 of the Implementing Regulations of the Patent Law of China.

Both the protection of the independent claim 11 and the dependent claim 10 are substantively the same.

Based on the same reasons as commenting to claim 10, **claim 11 does not comply with the provision on inventive step as prescribed in Article 22, paragraph 3 of the Patent Law of China** in that it does not possess any

prominent substantive feature, nor does it represent a notable progress compared with the **References 1 and 2**.

13. The additional technical features of the **dependent claims 12 to 17** are the same as the additional technical features of claims 2 to 7. Based on the same reasons as commenting to claims 2 to 7, **claims 12 to 17** do not comply with the provision **on inventive step as prescribed in Article 22, paragraph 3 of the Patent Law of China** in that they do not possess any prominent substantive feature, nor does it represent a notable progress compared with the **References 1 and 2**.

14. **The independent claim 18** is not concise, which does not comply with the provision of Rule 20, paragraph 1 of the Implementing Regulations of the Patent Law of China.

Both the protection of the independent claim 18 and the dependent claim 9 are substantively the same.

Based on the same reasons as commenting to claim 9, claim 18 does not comply with the provision **on inventive step as prescribed in Article 22, paragraph 3 of the Patent Law of China** in that it does not possess any prominent substantive feature, nor does it represent a notable progress compared with the **References 1 and 2**.

15. **The independent claim 19** claims to protect a method for controlling a modem which is corresponding to the modem as described in claim 1. The technical features of both are corresponding to each other one by one. Therefore, according to the same reasons as commenting to claim 1, **claim 19** does not comply with the provision **on inventive step as prescribed in Article 22, paragraph 3 of the Patent Law of China** in that it does not possess any prominent substantive feature, nor does it represent a notable progress compared with the **References 1 and 2**.

16. The additional technical features of the **dependent claims 20 and 21** are the same as the additional technical features of claims 2 and 3. Therefore, according to the same reasons as commenting to claims 2 and 3, **claims 20 and 21** do not comply with the provision **on inventive step as prescribed in Article 22, paragraph 3 of the Patent Law of China** in that they do not possess any prominent substantive feature, nor does it represent a notable progress compared with the **References 1 and 2**.

17. The additional technical features of the **dependent claims 22 and 23** are

the same as the additional technical features of claims 10 and 9. Therefore, according to the same reasons as commenting to claims 10 and 9, **claims 22 and 23** do not comply with the provision on **inventive step as prescribed in Article 22, paragraph 3 of the Patent Law of China** in that they do not possess any prominent substantive feature, nor does it represent a notable progress compared with the **References 1 and 2**.

In summary, neither the independent claims nor the dependent claims of the present application possess inventive step, in the meantime, no other substantive content that deserves a patent right is recorded in the specification. Therefore, the present application does not have a prospect of being granted a patent right even if the applicant recombines the claims and/or makes further definition to the claims according to the disclosure of the specification. The application will be rejected if the applicant fails to provide convincing reasons to show the present application does possess inventive step within the time limit specified in the present Office Action. In addition, based on the provision of Rule 51 of the Implementing Regulations of the Patent Law of China, any voluntary amendments that fail to follow the above opinions probably will result in that the present application documents being not accepted.

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